

A L E R T P E R I O D S The International Space Environment Service

NOVEMBER 2004

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
306	01	31	163	139	10	10687	N12	W80	0	0	0	01	Q	SOL: Active
						10689	N11	W57	0	0	0	01	Q	MAG: Active
						10690	S02	W41	0	0	0	01	Q	PRO: Quiet
						10691	N13	W42	3	2	0	01	E	
						10693	S16	E22	0	0	0	01	E	
						10694	N14	W16	0	0	0	01	Q	
						10695	S15	E55	0	0	0	01	Q	
307	02	01	144	136	7	10687	N11	W92	0	0	0	02	Q	SOL: Active
						10689	N11	W71	0	0	0	02	Q	MAG: Active
						10690	S02	W54	0	0	0	02	Q	PRO: Quiet
						10691	N13	W55	2	1	0	02	E	
						10693	S16	E08	0	0	0	02	E	
						10695	S15	E39	0	0	0	02	Q	
						10696	N09	E63	0	0	0	02	Q	
308	03	02	110	133	5	10689	N10	W81	0	0	0	03	Q	SOL: Eruptive
						10690	S01	W67	0	0	0	03	Q	MAG: Quiet
						10691	N12	W67	0	0	0	03	E	PRO: Quiet
						10693	S14	W05	2	0	0	03	E	
						10695	S12	E27	0	0	0	03	Q	
						10696	N08	E47	0	0	0	03	Q	
309	04	03	123	136	9	10690	S01	W81	0	0	0	04	Q	SOL: Active
						10691	N13	W81	4	1	0	04	E	MAG: Active
						10693	S15	W18	1	0	0	04	E	PRO: Quiet
						10695	S14	E12	0	0	0	04	Q	
						10696	N09	E32	3	3	0	04	E	
310	05	04	135	136	9	10691	N13	W94	0	0	0	05	Q	SOL: Major
						10693	S15	W31	0	0	0	05	E	MAG: Quiet
						10695	S14	E01	0	0	0	05	Q	PRO: Quiet
						10696	N09	E19	2	0	0	05	E	
311	06	05	83	141	3	10693	S15	W44	0	0	0	06	E	SOL: Active
						10695	S14	W13	0	0	0	06	Q	MAG: Major
						10696	N09	E06	7	2	0	06	E	PRO: Warning
312	07	06	106	129	1	10693	S15	W57	0	0	0	07	E	SOL: Active
						10695	S14	W27	0	0	0	07	Q	MAG: Major
						10696	N09	W08	3	4	0	07	E	PRO: Quiet
						10697	N05	W52	0	0	0	07	Q	
						10698	S10	W42	0	0	0	07	Q	
313	08	07	94	130	26	10693	S17	W71	0	0	0	08	E	SOL: Major
						10695	S16	W40	0	0	0	08	Q	MAG: Major
						10696	N08	W22	6	0	1	08	E	PRO: Proton
						10697	N07	W66	0	0	0	08	Q	
						10698	S09	W56	0	0	0	08	Q	
314	09	08	93	124	124	10693	S17	W82	0	0	0	09	Q	SOL: Major
						10696	N08	W36	10	1	0	09	E	MAG: Major
						10698	S09	W72	2	0	0	09	Q	PRO: IP
315	10	09	90	127	91	10693	S18	W93	0	0	0	10	Q	SOL: Major
						10696	N08	W50	4	1	0	10	E	MAG: Major
						10698	S09	W84	1	0	0	10	Q	PRO: IP
						10699	S16	E66	0	0	0	10	Q	
316	11	10	50	105	118	10696	N08	W62	2	0	1	11	P	SOL: Active
						10699	S15	E53	0	0	0	11	Q	MAG: Major
									0	0	0	11		PRO: IP
317	12	11	70	95	22	10696	N08	W76	1	0	0	12	P	SOL: Eruptive
						10699	S14	E38	0	0	0	12	Q	MAG: Major
						10700	N04	W02	0	0	0	12	Q	PRO: IP
						10701	S16	E70	0	0	0	12	Q	

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							Lat	Lon	Opt	M	X			
318	13	12	52	97	26	10696	N08	W87	0	0	0	13	Q	SOL: Eruptive
						10699	S14	E27	0	0	0	13	Q	MAG: Active
						10700	N05	W14	0	0	0	13	Q	PRO: IP
						10701	S17	E60	0	0	0	13	Q	
319	14	13	50	96	9	10699	S15	E17	0	0	0	14	Q	SOL: Eruptive
						10700	N05	W27	0	0	0	14	Q	MAG: Quiet
						10701	S17	E45	0	0	0	14	Q	PRO: IP
320	15	14	69	100	10	10699	S13	E03	0	0	0	15	Q	SOL: Eruptive
						10700	N04	W40	0	0	0	15	Q	MAG: Quiet
						10701	S15	E30	0	0	0	15	Q	PRO: Quiet
321	16	15	57	106	3	10699	S13	W10	0	0	0	16	Q	SOL: Eruptive
						10700	N04	W53	0	0	0	16	Q	MAG: Quiet
						10701	S15	E17	0	0	0	16	Q	PRO: Quiet
322	17	16	46	108	9	10699	S13	W23	0	0	0	17	Q	SOL: Eruptive
						10700	N04	W67	3	0	0	17	E	MAG: Quiet
						10701	S15	E04	0	0	0	17	Q	PRO: Quiet
323	18	17	59	105	8	10699	S13	W36	0	0	0	18	Q	SOL: Eruptive
						10700	N04	W80	0	0	0	18	Q	MAG: Quiet
						10701	S15	W09	0	0	0	18	Q	PRO: Quiet
						10702	S10	W27	2	0	0	18	Q	
324	19	18	77	104	2	10699	S13	W50	0	0	0	19	Q	SOL: Eruptive
						10700	N04	W93	0	0	0	19	Q	MAG: Quiet
						10701	S15	W22	0	0	0	19	Q	PRO: Quiet
						10702	S10	W40	0	0	0	19	Q	
						10703	N13	E46	0	0	0	19	Q	
						10704	N12	E75	0	0	0	19	Q	
325	20	19	61	102	5	10699	S14	W65	0	0	0	20	Q	SOL: Quiet
						10701	S16	W34	0	0	0	20	Q	MAG: Quiet
						10702	S11	W54	0	0	0	20	Q	PRO: Quiet
						10703	N12	E34	0	0	0	20	Q	
						10704	N13	E62	0	0	0	20	Q	
326	21	20	40	99	18	10701	S16	W48	0	0	0	21	Q	SOL: Quiet
						10702	S09	W72	0	0	0	21	Q	MAG: Quiet
						10704	N12	E51	0	0	0	21	Q	PRO: Quiet
327	22	21	27	101	16	10701	S15	W61	0	0	0	22	Q	SOL: Quiet
						10704	N12	E39	0	0	0	22	Q	MAG: Active
									0	0	0	22		PRO: Quiet
328	23	22	28	106	10	10701	S17	W74	0	0	0	23	Q	SOL: Eruptive
						10704	N13	E25	0	0	0	23	Q	MAG: Quiet
									0	0	0	23		PRO: Quiet
329	24	23	45	107	5	10701	S15	W83	0	0	0	24	Q	SOL: Eruptive
						10704	N12	E11	0	0	0	24	Q	MAG: Quiet
						10705	S04	W64	0	0	0	24	Q	PRO: Quiet
330	25	24	72	107	7	10703	N13	W31	0	0	0	25	Q	SOL: Eruptive
						10704	N13	W04	0	0	0	25	Q	MAG: Quiet
						10705	S04	W80	0	0	0	25	Q	PRO: Quiet
						10706	S08	E71	2	0	0	25	Q	
						10707	S16	E68	0	0	0	25	Q	
331	26	25	61	109	18	10704	N13	W17	0	0	0	26	Q	SOL: Eruptive
						10705	S04	W95	0	0	0	26	Q	MAG: Quiet
						10706	S08	E56	0	0	0	26	Q	PRO: Quiet
						10707	S15	E57	0	0	0	26	Q	

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							Lat	Lon	Opt	M	X			
332	27	26	61	111	16	10704	N12	W30	0	0	0	27	Q	SOL: Eruptive
						10706	S07	E44	0	0	0	27	Q	MAG: Quiet
						10707	S16	E42	0	0	0	27	E	PRO: Quiet
						10708	N08	E81	0	0	0	27	Q	
333	28	27	64	110	10	10704	N13	W44	0	0	0	28	Q	SOL: Eruptive
						10706	S07	E31	0	0	0	28	Q	MAG: Quiet
						10707	S16	E27	0	0	0	28	E	PRO: Quiet
						10708	N10	E67	0	0	0	28	Q	
334	29	28	66	113	16	10704	N13	W54	0	0	0	29	Q	SOL: Quiet
						10706	S07	E19	0	0	0	29	Q	MAG: Quiet
						10707	S15	E14	0	0	0	29	Q	PRO: Quiet
						10708	N10	E56	0	0	0	29	Q	
335	30	29	40	111	19	10706	S08	E05	0	0	0	30	Q	SOL: Eruptive
						10707	S14	E02	1	0	0	30	Q	MAG: Active
						10708	N10	E40	0	0	0	30	Q	PRO: Quiet

(1) Region Forecast and Flare (SOL) Advice

Q = Quiet (<50% probability of C-class flares)
 E = Eruptive (C-class flares expected, probability >=50%)
 A = Active (M-class flares expected, probability >=50%)
 M = Major (X-class flares expected, probability >=50%)
 P = Proton (Proton flares expected, probability >=50%)
 W = Warning (activity levels are expected to increase, but no numerical forecast given)
 / = No forecast available

Magnetic (MAG) Geoadvice

'Quiet'
 'Active' conditions expected (A>= 20 or K =4)
 'Minor' storm expected (A>= 30 or K =5)
 'Major' storm expected (A>= 50 or K>=6)
 'Severe' storm expected (A>=100 or K>=7)
 'IP' magstorm in progress (A>= 30 or K>=4)
 'Warning' (activity levels are expected to increase, but no numerical forecast given)
 '/' no forecast available

Proton (PRO) Geoadvice

'Quiet'
 'Proton' event expected (10pfu at > 10 MeV)
 'Major' proton event expected (100pfu at >100 MeV)
 'IP' proton event in progress (>10 MeV)
 'Warning' (activity levels are expected to increase, but no numerical forecast given)
 '/' no forecast available

STRATWARM ALERTS

Termination of the STRATALERT Reports
 Stratospheric Research Group, FU Berlin

In the 1960s the stratospheric midwinter warmings were regarded as an exciting and interesting research problem. The observations taken during a warming were scarce but in great demand, and a much desired aim was to launch meteorological rockets when a warming was developing above a station. For this purpose an advisory system was necessary, such as had been established in the international geophysical community for other phenomena, the so-called GEOALERT. Charged by WMO (World Meteorological Organisation) the Stratospheric Research Group of the Freie Universität in Berlin got together with their colleagues of the American Weather Bureau and developed a warning system which was named STRATALERT. It was introduced in 1964 when the IQSY (International Year of the Quiet Sun) began (cf. ALERTING CRITERIA for more information).

The Berlin group was at first responsible for the European space, later for the whole Northern Hemisphere, and issued a STRATALERT report every day during winter, and when needed also a GEOALERT. The alerts were disseminated through the German Weather Service's international net and reached all interested parties everywhere. The STRATALERT reports were an essential source of information about what was going on in the stratosphere, information which at that time would not otherwise have been available to many scientists interested in current conditions. Because of this information it was possible to time experiments, for instance with meteorological rockets, to take place under desired conditions, and local observations could

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be fitted into and interpreted on the background of a wider field. This information system has served as a basis for decisions made in many large-scale field experiments. A review and classification of stratospheric warmings can be found in SPARC Newsletter No. 15, (Labitzke and Naujokat, 2000, updated table 1).

The winter, 2003/2004, was the last STRATALERT winter. After 41 years we are sorry to announce that we cannot continue this timely warning system in its old format and we could not find a successor. For those who are interested in STRATALERT messages, we provide access to all available messages via ftp:
<ftp://strat50.met.fu-berlin.de/pub/stratalert>

Those interested in the daily development of the stratospheric circulation can find some analyses and different stratospheric parameters based on the ECMWF-data here:
<http://strat-www.met.fu-berlin.de/cgi-bin/winterdiagnostics>.
The general evaluation is, however, left to the user.

Additional data links are (amongst others) available:

US National Centers for Environmental Prediction (CPC/NCEP):
<http://www.cpc.ncep.noaa.gov/products/stratosphere>

Japan Meteorological Agency (JMA):
<http://okdk.kishou.go.jp/products/clisys/STRAT>